

Information Sheet 21 Calculating your emissions under NCOS

ISA's method

The ISA approach is an approved methodology for calculating Scope 3 emissions under NCOS. It has been through a lengthy approval process conducted by the Department of Climate Change and Energy Efficiency and has been found to conform with all calculation principles. It is also easy to use and far less time consuming than for example, surveying your supply chain – and the supply chains of your suppliers and so on.

ISA is an NCOS approved methodology for calculating Scope 3 emissions

Only one set of data is required

In order to calculate your Scope 3 emissions¹ you require **only one** set of information – your organisation's financial accounts. Of course the more detailed your financial accounts are the more accurate the assessment of your Scope 3 greenhouse gas emissions will be. If you, for example, sort *packaging* expenditure into *paper* expenditure and *plastics* expenditure, which will have different GHG implications, then you will get more accurate results than if you lumped them together. However you can get useful and meaningful results with as few as 20 expenditure items².

The ISA methodology based on Input-Output Analysis (IOA)³ automatically carries out a *complete* upstream life-cycle assessment of your organisation's impacts. You don't have to decide what to include because your expenditure covers all goods and services that come into your organisation. No artificial boundaries have to be drawn and nothing is left out. This means that you do not have to decide beforehand which sources of emissions may prove *relevant* and then invest your time and effort into tracking them down. The whole supply chain is laid out for you revealing emissions that might be hidden two or three levels away from your organization. Such revelations are essential if you are to understand any risk that might flow through the supply chain to you from a cost on carbon. Once you can see the *relevant* emissions sources you can invest time into refining your information through dialogue with your supplier if you think this is necessary.

Adding Scope 1 and 2 emissions to your report is easy. The only additional information you need is onsite data about quantity of fuels, electricity and gas used directly by your organisation. NCOS provides a template for the collection of these data.

Calculating the footprint

What constitutes my Carbon Footprint?

The first step is to prepare a greenhouse gas inventory. NCOS provides a guidance template for this purpose. Low Carbon Australia requires that you prepare the inventory in line with domestic and international standards such as the Greenhouse Gas Protocol⁴ and

¹ This works in the same way for embodied water or energy or labor etc there are hundreds of indicators in the ISA model

² See Information Sheet 17 for more details.

³ For a plain English explanation of IOA see Murray J and Wood R (Eds), *The Sustainability Practitioner's Guide to Input-Output Analysis*, CommonGround, Illinois, USA, 2010

⁴ <http://www.ghgprotocol.org/> (accessed 09/08/11) ISA had input into the development of the new GHG Protocol standards through membership of three Technical Working Groups.

ISO 14064 series. It must include all Scope 1 and 2 emissions as defined by the Greenhouse Gas Protocol.

Businesses are also encouraged to report on indirect Scope 3 emissions. As a minimum they suggest Scope 3 emissions should include emissions from:

- Business related travel
- Disposal of waste to landfill
- Use of paper.

However companies are encouraged to include all 'relevant' Scope 3 emissions. For example emissions from:

- extraction, production and transport of purchased fuels;
- extraction, production and transport of purchased materials or goods;
- disposal of waste generated in the production of purchased fuels, materials and goods;
- outsourced activities; and
- cost of equipment, consumables, building lease, repairs, maintenance and communications.

Any exclusions of relevant Scope 3 emissions must be explained. Organisations are referred to the Greenhouse Gas Protocol for further information.

One difficulty is in knowing which items will prove 'relevant' without undertaking a full Scope 3 analysis⁵. Use of ISA's method described above solves this problem by showing you exactly where the high emissions activities are in the supply chain. You can then target your resources into more detailed exploration where it counts.

⁵ For a full explanation of this with examples see: Huang A, Lenzen M, Weber C, Murray J and Matthews S, The role of input-output analysis for the screening of corporate carbon footprints, *Economic Systems Research*, 21(3), 217-242, 2009